

## REMARKS

Applicants thank the Examiner for the first complete examination of the instant application. Claim 22 is currently pending in the instant application. Reconsideration of this application, in accordance with the following arguments, is respectfully requested.

### Claim Rejection Under 35 U.S.C. § 102(e)

Claim 22 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Thomsen et al. (U.S. Patent No. 6,064,409). This rejection is respectfully traversed.

Independent Claim 22 of the instant application sets forth a combination of limitations including:

A system comprising:  
at least one processor;  
a protocol card coupled to said at least one processor;  
a multiple channel digital-to-analog converter;  
a plurality of signal generators coupled to the protocol card and the multiple channel digital-to-analog converter to transmit analog information received from the multiple channel digital-to-analog converter in response to control from the protocol card;  
a plurality of radio frequency receivers; and  
a multiple channel analog-to-digital converter, coupled to the plurality of radio frequency receivers and said at least one processor, to convert analog information received by the plurality of radio frequency receivers to digital information for processing by said at least one processor.

The applicants respectfully submit that the combination of limitations set forth in Claim 22 are neither taught nor suggested by Thomsen et al. This position should not preclude the belief that specific limitations standing alone may define patentable subject matter and therefore render the claim allowable.

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

Claim 22 defines a system capable of testing a paging device having two-way functionality. Previously, pagers only had one-way functionality, so pager testing systems were not required to have two-way testing functionality.

Two-way paging devices use complicated protocols that typically include acknowledgments or message receipt transmission, as well as message origination from the paging device. Also, the two-way paging protocols often support use of multiple channels. That is, the paging device can be made to switch communication frequencies as needed. Each feature of the protocols for two-way paging should be tested during a testing process of a given two-way paging device, and since two-way paging devices also receive multiple frequencies, a tester system should be able to transmit on multiple frequencies. Conventional pager testing systems simply are not designed to handle the complexities of today's two-way pagers.

According to an exemplary embodiment of the present invention, a Network Operations Center (NOC) 100 provides a mechanism for creating a multi-channel wireless communications environment to test paging devices having two-way functionality. The NOC 100 includes a processor 101 that handles testing performed by the NOC 100. A plurality of DSP processors 108 and 109 are in communication with the processor 101. Generally the DSP processors 108 and 109 handle protocol activity processing.

The NOC 100 also includes at least one signal generator 103 that is directly and/or indirectly interfaced with the processor 101, and an I/O board 113 that is capable of handling one or more digital-to-analog converter channels 114. The I/O board 113 is also capable of handling one or more analog-to-digital converter channels 115. The analog-to-digital converter channels 115 may be advantageously connected to at least one base receiver 117 that routes signals for conversion by the converter channels 115.

The above description of an exemplary embodiment of the present invention is provided to further assist the Examiner in understanding the present invention. It is not meant to be limiting of the claimed invention.

Thomsen et al. teach a system designed to provide an audio probe that allows a user to "hear" signals propagating on a wire input to/output from an object. (See Abstract). The audio probe is defined in a data flow program (software) that may be interfaced with hardware that requires testing. This type of technology is often referred to "virtual instruments" (VIs). (See Column 5, lines 5-13).

In order to determine if Thomsen et al. may be relied upon as a reference that teaches and/or suggests the invention claimed in Claim 22, the program software and the hardware associated therewith should be analyzed. According to Thomsen et al., FIG. 5 shows an instrumentation system 204 according the invention. The system includes a computer 206 that includes a control processor 38, a front panel editor 36, an icon editor 34, a block diagram editor 30, and an execution subsystem 32. Each of the elements 30-36 are preferably implemented in software. (See column 6, lines 25-31) . The computer 206 is connected to a function generator 208 and a digital multimeter 210, and may further be connected to a unit under test 212. (See column 6, lines 31-37.)

The Thomsen et al. patent further discusses that the computer 206 may include a data acquisition card including analog to digital and digital to analog converters. The digital to analog converters generate signals to the unit under test 212 and the analog to digital converters handle signals from the unit under test 212. (See column 6, lines 47-52). Clearly, the digital to analog converters are designed to provide the computer system 206, that implements the use of the software enabled audio probe, with signals that can be heard through a speaker(s) connected to the computer system 206. (See column 7). Therefore, instead of graphs and other data that

was used previously to illustrate sound from a device under test, a user may advantageously hear signals produced by the unit under test 212.

Applicant does not dismiss that the invention described in the Thomsen et al. patent has usefulness and may even be considered an advance over other similar testing systems, but the proposition that the testing system according to Thomsen et al. teaches or suggests the invention of Claim 22 is incorrect. And this is that which is put forward by the Examiner.

Remembering that an anticipatory reference must teach each and every limitation of a rejected claim, the applicants ask where are the following limitations from Claim 22 taught in the Thomsen et al. patent. In particular, "a plurality of signal generators coupled to the protocol card and the multiple channel digital-to-analog converter to transmit analog information received from the multiple channel digital-to-analog converter in response to control from the protocol card" (emphasis added); and/or "a multiple channel analog-to-digital converter, coupled to the plurality of radio frequency receivers and said at least one processor, to convert analog information received by the plurality of radio frequency receivers to digital information for processing by said at least one processor." At least these limitations of Claim 22 are neither taught nor suggested by the relied upon patent.

In conclusion, the Examiner is respectfully reminded that "[i]t is well settled that a claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference. See *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1997). If the Examiner wishes to maintain the present rejection, she must show where in Thomsen et al. the recitation of Claim 22 is taught. This burden has not been met by the Examiner and therefore Claim 22 is presumed allowable.

In view of the above arguments, applicants respectfully submit that Mashimo et al. fails to teach or suggest at least the indicated limitations of Claim 22. Accordingly, applicants

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

respectfully request reconsideration and withdrawal of the claim rejection under 35 U.S.C. § 102(e).

CONCLUSION

In view of the arguments presented in this response, applicants respectfully submit that the instant application is in condition for allowance. Accordingly, the Examiner is respectfully requested to indicate the allowability of the instant application. The Examiner should feel free to contact the undersigned if it is believed that doing so will expedite the prosecution of the instant application.

Respectfully submitted,

CHRISTENSEN O'CONNOR  
JOHNSON KINDNESS<sup>PLLC</sup>

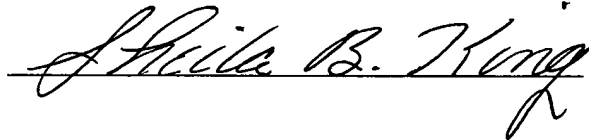


Timothy R. Wyckoff  
Registered Patent Agent  
Registration No. 46,175  
Direct Dial No. 206.695.1641

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LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100